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Approved For Release 2003/08/05 : CIA-RDP78B05171A000800030010-8

NPIC/TSG/PPS-063-70  
6 August 1970

MEMORANDUM FOR: Chief, Technical Services Group, NPIC

SUBJECT : Projects & Programs Staff Monthly Report - July 1970

A. During July, the Projects & Programs Staff conducted staff functions for TSG (including, (1) administrative, (2) daily representations to the Production Management Board, (3) working level liaison contact with PPBS on budget matters, and (4) with PSG on production matters) and also carried out the following additional actions.

1. A PPS member, acting as Permanent Secretary, scheduled, arranged, guided, and recorded the proceedings of two TSG Career Board meetings (6 and 27 July).
2. A PPS member represented the Group at a Center-wide Training Selection Panel on 15 July.
3. A PPS member provided the background data and prepared the brief expressing TSG's position regarding the Center's Production Management Board.
4. Extensive preparation efforts by the whole Staff have been directed to compiling the final manuscript that will become the 1970 edition of the NPIC Equipment Summary.
5. As Group Budget coordinators PPS members have made continual adjustments to the FY-71 Operating Budget throughout the month. Participation in the PPBS Budget review and subsequent presentation to the Executive Director was part of this effort.
6. This Staff has been assigned as Group Coordinator for the Imagery Analysis Training Manual proposed by the Office of Training.
7. Coordinated and scheduled six (6) more Group orientation briefings for PSG/AID and new IEG employees.

DECLASS REVIEW by NIMA/DOD

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SUBJECT: Projects & Programs Staff Monthly Report - July 1970

B. During August the following significant actions are anticipated.

1. Complete the schedule of AID tours, and arrange additional IEG tours.

2. Complete the Equipment Summary manuscript and prepare for printing.

3. Complete the compilation of data to be used in the Imagery Analysis Training Manual.

4. Prepare the [ ] agenda for August.

5. Finalize the FY-71 budget and refine the FY-72 Office Estimates.

6. Coordinate TSG participation in [ ] modification program in preparation for activation of 1540 light tables.

7. Prepare and provide in-depth information relative to KH-9 preparedness.

8. Coordinate final preparation of a schedule for the three-month TSG Orientation of [ ]

Acting Chief,  
Projects & Programs Staff, TSG, NPIC

Distribution:

Original - Addressee

2 - NPIC/TSG/PPS

1 - NPIC/TSG/APSD

1 - NPIC/TSG/ESD

1 - NPIC/TSG/RED ✓

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6 August 1970

MEMORANDUM FOR: Chief, Projects & Programs Staff,  
TSG/NPIC

SUBJECT: APSD Activity Report for July 1970

1. The following items of significant interest occurred in the APSD during July 1970:

A. Administrative

(1) Certificates of membership to the NPIC Century Club were conferred upon

These were presented by  
DDCI, on 7 July 1970.

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(2)

were recipients of cash awards and certificates of appreciation for suggestions they had made which resulted in significant savings to the Community.

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(3) This month began a one-year TDY assignment at the Air War College, Maxwell AFB, Montgomery, Ala.

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(4) Chief, Section II of IEB transferred to IEG on 20 July.

has been designated as Acting Chief, Section II and  
Acting Chief, Section I.

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(5)

attended the color course at Renssaeler Polytechnical Institute in Troy, New York the week of 6 July.

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SUBJECT: APSD Activity Report for July 1970

B. Exploitation Support

(1) Interpretation

(a) Forty selected frames of [redacted] were reproduced on high contrast emulsions S0-369 and 6451 at [redacted] and Westover AFB in an effort to enhance the imagery for PI exploitation.

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(b) [redacted]

[redacted] briefed SPAD on the advantages of high contrast reproductions and color separation reproductions for photo interpretation.

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(2) Photogrammetric Statistics and Investigations

(a) Photogrammetric analysis of a space object imaged on the Index photography of [redacted] was completed to satisfy the requirement stated in cable IN 53480 dated 24 June 70.

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25X1

A project report is being written to describe the analytic techniques employed and the computed data.

(b) A math model to generate ground control for terrain camera photography was completed to satisfy requirements in IEG/PHD speed letters #13 and #14. The project document was sent to PHD.

(c) Micro-d traces of SA-5 boosters were made in support of AB/PHD/IEG for their detailed analysis on that missile. The traces and photomicrographs from ON were given to [redacted] on 29 June 70.

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ATTACHMENT to:

[REDACTED]

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SUBJECT: APSD Activity Report for July 1970

25X1 (d) Four micro-d traces and four  
isodensitraces were made of 35mm reproductions  
from [REDACTED] Four Soviet ships were  
traced in an attempt to derive their com-  
partmentation and [REDACTED] Traces  
were sent to [REDACTED] NRTS via  
[REDACTED] DIAXX-4 with a memo  
description of the procedures (techniques)  
utilized.

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C. Collection System Support and Aids

(1) The final draft of the [REDACTED] manual  
was completed and submitted to RED/RSB for  
review.

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25X1 (2) Several raster scan traces have been  
made of selected imagery for RED. This data  
is to be processed at Patrick AFB in their image  
enhancement programs to determine the effective-  
ness and how applicable their DIM system is with  
this type of imagery. Additional traces are to  
be made in the following months in support of  
this project. Digitized raster  $\mu$ D traces are also  
being made of selected subjects to be sent to  
[REDACTED] for DIM processing. This support is  
being provided to RED.

25X1 (3) Film statistics data was summarized  
for the full fiscal year and a comparison by  
mission and footages has been compared against  
the FY 69 inputs. These were provided the  
Deputy Director, NPIC and the Management Staff  
of PPBS. The information was also prepared in  
briefing board-format and presented by  
[REDACTED] at the Director's staff briefing  
on 25 July.

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SUBJECT: APSD Activity Report for July 1970

(4) In preparation for the expected operational employment in early July of a new photo collection system, launch plans were monitored on a daily basis until a decision to stand-down the operation was announced on 10 July.

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(5) [ ] assisted the NRO in publication of their annual PFAIB report. Support included graphics, photography, and publication which was provided by the various PSG components of NPIC. [ ] was personally involved in selection of much of the material included in the report.

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(6) An evaluation was conducted for [ ] in regard to the compatibility of SO-349 in the IRIS camera system. The results are contained in cable OUT 70145.

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(7) In support of a geology study being conducted by [ ] a number of DISIC frames which cover the same geographic area as the color material from [ ] were selected. This material was shipped to [ ] via DDS&T/OSP on 13 July 1970.

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(8) The Edge Trace Target Catalogue periodic updating was accomplished during the month. The exact changes are contained in memorandum, [ ] dated 20 July 1970.

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(9) Detailed analysis of the "Operational Handbook for Evaluation of Original Negative" continues in the division. Minor gaps and errors in documentation are being encountered but are being resolved through analysis and direct contact with [ ] i.e., meeting of 21 July. Emphasis is being placed on the "Data Collection and Generation of Target Data and Mission Summary Files." The calculation of acutance and subsequent statistical analysis has been programmed by the APSD/IEB. Programming of the tonal evaluation has begun.

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SUBJECT: APSD Activity Report for July 1970

2. The following significant items are anticipated for the month of August:

A. The camera contractor suggested to the OSA that flight tests be conducted to determine the potential of SO-242 color film in the IRIS camera. OSA concurred and established the procedures in cable IN 55147. The flights (2) are tentatively scheduled for the first week of August.

B. Six men are scheduled to provide initial phase handling support at [REDACTED] In addition, two photointerpreters will accompany the team to provide a quick readout of the coverage of the SS-9, SS-11 and SS-13 missile sites. Recoveries are scheduled for 29 July and 8 August 1970.

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C. The PET meeting for [REDACTED] will probably be held at NPIC the last week of August or the first week of September.

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D. Five men are tentatively scheduled to provide initial phase handling support at [REDACTED] Recovery dates are approximately 20 and 28 August.

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E. APSD is working on a special study called Technical Night Film Evaluation, [REDACTED] The product of this evaluation will be a hard copy report. The analysis will consist of the types and brightness of the recorded "light" images, a density analysis and a resolution comparison of the 3401 emulsion vs. the SO-380. The evaluation is well underway and should be completed about the middle of August.

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F. The APSD plans to complete informative papers about:

- (1) Error propagation
- (2) Relative orientation
- (3) Space resection

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SUBJECT: APSD Activity Report for July 1970

G. The division should complete the AP-3 Preprocessor documentation for ACIC.

H. High contrast prints will be made of approximately 140 COMIREX targets in Egypt if they are covered on

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Chief, Applied Photo Science Division,  
TSG/NPIC

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NPIC/TSG/ESD-45-70  
7 August 1970

MEMORANDUM FOR: Chief, Projects & Programs Staff, TSG, NPIC

SUBJECT: ESD Monthly Report for July 1970

A. Noteworthy Events

25X1 1. 1540 Light Table - A test program for the Mod II prototype was accomplished during the period 12 March through 30 April. The T&E report on that program was distributed during July. The unit has now been modified by the Mfg. to correct certain deficiencies and was re-tested by TEB during this reporting period. A supplementary report on this re-testing is being prepared and will be distributed to all recipients of the basic T&E report.

25X1 2. 1540 Light Table - This table was tested concurrently with the 1540 Light Table in item 1 above. The T&E report will be distributed very shortly. This table was also returned to the Mfg. for correction of deficiencies. The TEB engineer, operating division representatives and RED project officer all visited 1540 Light Table on 8-9 June to inspect the modifications which had been accomplished. A trip report (TSG/ESD/TEB-16-70) was distributed stating that all discrepancies had not been corrected at that time. However, major ones, involving the microstereoscope carriage, had been satisfactorily re-designed. TEB has been informed that this prototype will not be shipped to NPIC at this time for re-testing.

25X1 3. Advanced Stereo Rhomboid - The T&E report has been completed and is being reproduced at this time.

25X1 4. Wide Field Filar Eyepiece - The prototype has completed its planned schedule of testing. However, as a result of evaluation by the operating divisions it has been determined that an additional test, to evaluate its measuring usefulness in stereo as well as in mono, is in order. In view of the strong interest in this item by IEG, IAS and DIA we are investigating means for performing this additional test.

25X1 5. Advanced 918 Light Table - The T&E report on this item was distributed in March. Since then the unit has been modified by the Mfg. for correction of deficiencies and re-tested. A supplementary test report was prepared during July and will be distributed shortly.

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SUBJECT: ESD Monthly Report for July 1970

25X1 6. Intergraphics Retrofit Film Drive Kit - TEB conducted its engineering test on this item during the period 8-24 July. It is now proceeding through all four [ ] operating divisions for operational evaluation. This phase is scheduled for completion on 28 August.

7. "Green Grid" Light Table Test - The light sources of a MIM-47B table were left on continuously in TEB from 31 March to 24 July. It was turned off after 27 1/2 hours. The liquid coolant did not visibly turn green on this particular table. The maximum light output decreased from 2800 fL to 1500 fL during this period. ESD has replaced the lamps with new ones, producing 3000 fL, and returned the table to DIAAP-9. A memorandum report on this is being prepared.

8. Light Table Brightness Survey - This project was mentioned briefly in last month's report. A T&E report on it was distributed during July. This survey, involving 50 light tables in operational use, was designed to obtain data on light table brightness levels being utilized. Much significant data was obtained on both light table performance limitations as well as on the way they are being used. The results include information such as this: 56% of the tables are in use at any one time; 27% of these are being used in stereo; both formats are used only 21% of total operating time; and 40% of each MIM-4 format is not being used leading to the conclusion that uniform illumination is not needed over the entire format. A high uniform brightness level over a small well defined area of each format would be adequate. \*

25X1 9. [ ] 2X Objective Lens for Zoom 240 - This item may be useful for utilization with the new Zoom 240R/Mod. 28 rhomboid system. It will provide additional magnification for the binocular monoscopic viewing mode. The lens has been loaned to the Center by the Mfg. for evaluation. TEB received it the last of July and is preparing a test program.

25X1 10. Briefing's Presented - On 2 July to the new Co-ops; on 8 July to [ ] on 7, 14, 21 and 28 July to AID employees.

11. Equipment Summary Annex - A T&E annex was prepared for inclusion in the NPIC Interim Equipment Summary.

12. Emergency Service - The Equipment Performance Branch received 64 requests for miscellaneous emergency service during July. Approximately

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SUBJECT: ESD Monthly Report for July 1970

56% were electronic type, 34% mechanical and 10% optical. These requests by operational components are:

PSG	32	DIA	6
TSG	16	Army	2
IEG	7	IAS	1

13. Preventive Maintenance - Under the Preventive Maintenance program a total of 302 instruments were serviced. This included cleaning, repairing, lubrication, alignment, and replacement of missing or malfunctioning parts. Minor modifications were made as required. These actions by operational components are:

IEG	145	Army	11
DIA	125	TSG	2
PSG	18	IAS	1

14. Modification, Design, and Fabrication - Fourteen modification, design, and fabrication projects were completed in support of Center components.

15. Acceptance Inspection - The following new equipment was tested for operational components:

25X1 [ ] Anamorphic Eyepieces 8

25X1 16. On 13 July [ ] E.O.D. with TEB. [ ]  
a recent BSEE from Oregon State University, also possesses an associate degree in mechanical engineering. He served four years in the Air Force on electronic and cryptographic systems repair.

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25X1 17. [ ] attended a seminar on Color Technology at Rensselaer on 6-10 July. He was on annual leave during the period 13 through 28 July.

25X1 18. [ ] has returned after annual leave from 22 June through 20 July.

25X1 19. [ ] is attending a five week maintenance course on Honeywell DDP-516 Computers in Framingham, Mass.

25X1 20. [ ] a University of Maryland student, came on board as a summer intern.

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SUBJECT: ESD Monthly Report for July 1970

25X1 21. [ ] received membership certificates in the Century Club, honorary for suggestors receiving \$100.00 or more. The awards were presented by Mr. Lundahl.

B. Anticipated Events for August 1970

1. Distribution of a T&E Report on the [ ] 1540 Light Table. 25X1
2. Distribution of a Supplementary Report on the [ ] 1540 Light Table. 25X1
3. Distribution of a T&E Report on the ASR.
4. Distribution of a Supplementary Report on the [ ] 918 Light Table. 25X1
5. Distribution of a Memorandum Test Report on the "Green Grid" test.
6. Arrival at NPIC for T&E of a 40" Dry Silver Paper Processor and a 10" Dry Silver Film Processor from [ ] 25X1

SIGNED

[ ]  
Deputy Chief  
Engineering Support Division, TSG, NPIC

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[redacted]  
7 August 1970

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MEMORANDUM FOR: Chief, Technical Services Group, NPIC

ATTENTION : Chief, PPS/TSG

SUBJECT : RED Monthly Report on Significant Events  
(July 1970)

A. Significant Items of Interest for July 1970:

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1. Automatic Stereo Scanner [redacted]. [redacted] has completed an inventory of all items associated with the Scanner and has prepared the instrument for shipment to [redacted]. This shipment should occur during the first part of August. Upon receipt, [redacted] will begin its reassembly with [redacted] assistance. The concurrent [redacted] contract, "Utility of Stereo Scanning," was initiated during July.

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2. Automatic Target Indexing Device - [redacted] The system is in the final assembly stage and the project is on schedule. The planned shipment date of 11 September is still valid. The device will be assigned to PSG/R&RD for operational evaluation of automatic cloud indexing. It will be placed in Room 2N617 for both T&E and for the operational evaluation. All the necessary preparation for the device's installation in NPIC are currently underway.

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3. Radar Parameters Study - [redacted] This study, being performed for [redacted] by a joint effort of NPIC/IEG and [redacted] has been initiated. Test materials and procedures are now being formulated, and actual PI testing should begin in August. This is a four-month project and it is on schedule.

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4. Improved Rear Projection Screens - [redacted] The final report has been received along with small samples of lenticular screens which demonstrate increased performance over conventional screens. A proposal has also been received for a follow-on effort to eliminate undesirable color and to fabricate large (30" x 30") screens which would be compatible with the Scan & Search PI Station (now being designed by [redacted]). This proposal is under evaluation.

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SUBJECT: RED Monthly Report on Significant Events (July 1970)

5. Wide-Field High Power Anamorphic Stereoviewer - [ ] After a long period of "stop work" on this project (due to lengthy contractual negotiations), work has started on the fabrication phase. This phase has been subdivided into three measurable milestones--each of which will be reviewed and evaluated before proceeding to the subsequent milestone. The project is on schedule.

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6. Automatic Stereogram Feasibility Study - [ ] The final report on the feasibility of the optics has been received and is being evaluated. The advisability of continuing this project will be determined in the near future.

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7. Color Analyzer. [ ] ATB/RED, conferred with both [ ] and PSG/PD to finalize requirements for a color analyzer. A proposal is expected from [ ] shortly.

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8. Proposals Received.

a. A draft proposal has been received from [ ] for the FY-71 Color Technology Implementation Program. This is being evaluated.

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b. The proposal for FY-71 continuation of the [ ] Grant in Photoscience was received, evaluated, and judged acceptable.

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9. Reports Received.

a. Final reports covering the Color Gamut for SO-242 and the Analytical Density Matrix for SO-360 were received from [ ] [ ] under the T&M contract, and they are currently being reviewed.

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b. [ ] reported results of a broad-brush analysis of the oil that turned green in light tables. The contamination was attributed to copper and nickel.

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10. Chemical Image Manipulation. Halos were first obtained with operational imagery using [ ] processing on 2430 film. This achievement remains to be refined and evaluated as a useful technique for chemically manipulating images.

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SUBJECT: RED Monthly Report on Significant Events (July 1970)

11. [ ] 1540 Split-Format Light Table. The [ ] 1540 split-format light table prototype was received. TEB/ESD has evaluated the corrections made on the instrument and will produce an addendum report on the results of their evaluation.

12. Chip Implementation Study. A final technical report covering Phase I of the Chip Implementation Study Program was submitted to RED [ ]. This report has been disseminated throughout the Center for information and evaluation.

13. IEG Training Package. The [ ] developed a training package on SA-3 site recognition pilot--tested in IEG; other packages on naval and electronics targets also given preliminary evaluation.

14. Contracts Signed.

- a. Contract with [ ] Information Systems for a Step & Repeat Contact Printer Design Study on 26 June 1970; and
- b. Contract for fabrication of the prototype Scan & Search PI Station with [ ] on 30 June 1970.

15. Training.

- a. [ ] attended the course entitled Principles of Color Technology given at Rensselaer Polytechnic Institute. Information obtained from this course will result in improvements in our capability for measuring and specifying and establishing tolerances for color processes.
- b. [ ] attended the R&D Management Course given in New York by American Management Association.
- c. [ ] attended a demonstration of tape transport systems and on-line printers put on by [ ] on 29 July 1970.

16. Briefings.

- a. RSB/RED, with the assistance of APSD, provided NPIC with briefings on the [ ] system. A total of 15 briefings over a three-day period were given. Private briefings were conducted on this system during the reporting period to requesting personnel.

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SUBJECT: RED Monthly Report on Significant Events (July 1970)

16. Briefings. (cont.)

b. A series of briefings on Dry Silver Materials and Equipment Developments were given by RED and [ ] personnel to the Group Chiefs, followed by an RED briefing of [ ] on the FY-71 dry silver follow-on proposal.

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c. The Executive Director, NPIC, and Group and Division Chiefs, were briefed on the proposed FY-71 [ ] Interpretation Research Program [ ]

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B. Anticipated Items of Interest for August 1970.

None.

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[ ]  
Deputy Chief  
Research & Engineering Division,  
TSG/NPIC

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